

SCOPE OF CLAIMS

1. An optical measurement device which includes to optically measure a measurement object substance
5 within a measurement region of a subject, to display an image representing measurement amount or its variation of the measurement object substance within the measurement region on a screen in an image display window, to designate any position within the
10 measurement region, and to display the measurement amount, its variation of the measurement object substance at the designated position, time dependency information either of them or information of the designated position on the screen in another window.
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2. An optical measurement device characterized in that, the optical measurement device comprises a measurement portion in which a measurement object substance within a measurement region of a subject is
20 optically measured, a first display portion which displays an image based on signals from the measurement object substance or the measurement portion, a light receiver which is arranged on the subject in the measurement portion and detects light
25 from the subject, a designator which designates a position of the light receiver, a pointer which is displayed on the first display portion in response to

the position designated by the designator, and a second display portion within the first display portion including a window in which the measurement amount, the measurement amount variation or time information of the measurement object substance for the position is displayed through designation and clicking of the pointer.

3. An optical measurement device according to claim 2, characterized in that as a display of the second display portion a moving picture is displayed.

4. An optical measurement device which optically measures a measurement object substance within a measurement region of a subject, characterized in that the optical measurement device determines a measurement amount of the measurement object substance at a measurement position according to a detection value detected at a detection portion of a light illuminated from an illumination position within the measurement region, displays on a first image screen a map shaped image formed by connecting points (positions) having equal measurement amount or measurement amount variation by making use of the measured amount, designates any position on the image and displays on a second image screen the measurement amount or the measurement amount variation of the

measurement object substance at the position designated.

5. An optical measurement device according to claim 4,
5 characterized in that there are a plurality of illumination positions, a light having a plurality of wavelengths is illuminated on the respective illumination positions, from one detection position a light component including signal components of
10 corresponding number of wavelengths at the concerned illumination positions, a reference signal is provided for each of the light components and the measurement amount is determined after separating light components each having respective wavelengths.

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6. An optical measurement device according to claim 4, characterized in that the first image screen and the second image screen are constituted by a single display screen.

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7. An optical measurement device according to claim 4, characterized in that the first and the second image screen are constituted as separate display screens.

25 8. An optical measurement device according to claim 4, characterized in that lines passing through the designated position in horizontal and vertical

directions are displayed on the first image screen while displacing the same in response to a change of the position designation.

- 5 9. An optical measurement device according to claim 8, characterized in that a scale for reading horizontal and vertical positions of the lines in horizontal and vertical directions are displayed.
- 10 10. An optical measurement device which optically measures a measurement object substance within a measurement region of a subject, characterized in that optical fibers are passed through a sensor made from a piezoelectric element which is placed under contact or
15 non-contact condition to the subject, a measurement position is set on the sensor, a light is illuminated from the optical fiber onto an illumination position within the measurement region, a detection value detected at a detection position is outputted via the
20 optical fiber and measurement amount or measurement amount variation of the measurement object substance at the measurement position is determined.